REMARKS

This Application has been carefully reviewed in light of the Office Action mailed March 5, 2001. Claims 1- 150 were initially filed in this Application. The Examiner restricted the Application to (i) a method of plasma plating of Claims 1-133, and (ii) a "hot filament apparatus" of Claims 134-150. The Examiner further indicated that several species exist within the method of plasma plating of Claims 1-133, and that Applicants must elect a single disclosed species.

As discussed with the Examiner during a teleconference on April 4, 2001 with the undersigned, Applicants elect, without traverse, to proceed with the invention and species of a method of plasma plating of Claims 1-103, 105, 110-114, and 117-133, which do not include the species of a "boat or crucible", "ray gun", "electron beam gun", "heat gun", a "chemical reaction" or "microwave" as the filament or as part of the filament. As such, Applicants have cancelled Claims 104, 106-109, 115, 116 and Claims 134-150, all without prejudice, and, thus, Claims 1-103, 105, 110-114, and 117-133 are currently pending in this Application.

Claims 1, 32-48, 51, 52, 54, 103, 105, 110-112 and 129 have been amended, as discussed and confirmed with the Examiner via the teleconference of April 4, 2001, purely for stylistic reasons. Except for Claim 129 where the term "filament" was removed from the claim, the term "filament" has been replaced by the terms "evaporation sources", as suggested by the Examiner in the Office Action mailed March 5, 2001. It should be understood that such amendment is in no way related to the patentability of Claims 1, 32-48, 51, 52, 54, 103, 105, 110-112 and 129, and in no way is such amendment provided to overcome a patentability rejection, either based on prior art or based on statutory provisions. The amendment of these claims should not be

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misconstrued as an admission or estoppel of any type, and the scope of such claims should not be limited, in any manner whatsoever. The application of the doctrine of equivalents should fully apply to all such claims when issued, including all elements or limitations thereof. Applicants submit that the Application in now in condition for allowance and respectfully request favorable action in this case.

CONCLUSION

For all the reasons mentioned herein, Applicant respectfully requests reconsideration. Applicant submits that the Application is in condition for full allowance, and Applicant earnestly seeks such full allowance. Should the Examiner have any questions, comments, or suggestions in furtherance of the prosecution of this Application, please contact the undersigned by telephone at 214.979.3027. Applicant, through his attorney, stands ready to conduct a telephone interview with the Examiner to review this Application if the Examiner believes that such an interview would assist in the advancement of this Application.

To the extent that any further fees are required during the pendency of this Application, including petition fees, the Commissioner is hereby authorized to charge payment of any additional fees, including, without limitation, any fees under 37 C.F.R. § 1.16 or 37 C.F.R. § 1.17, to Deposit Account No. 23-3189 of Worsham Forsythe Wooldridge LLP and reference Attorney Docket No. TUEC.IP2005. In the event that any additional time is needed for this filing, or any additional time in excess of that requested in a petition for an extension of time, please consider this a petition for an extension of time for any needed extension of time pursuant to 37 C.F.R. § 1.136 or any other section or provision of Title 37. Applicant respectfully requests that the Commissioner grant any such petition and authorize the Commissioner to charge the Deposit Account referenced above. Please credit any overpayments to this same Deposit Account.

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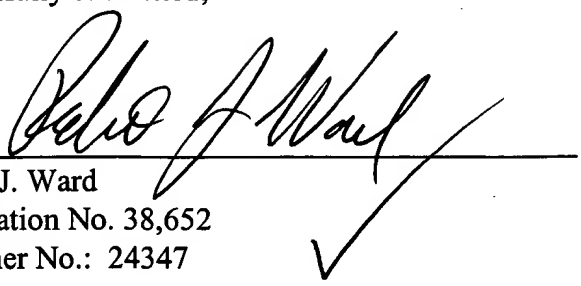
Respectfully submitted,



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April 5, 2001

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EXHIBIT A

Version of Claims 1, 32-48, 51, 52, 54, 103, 105, 110-112, 129 with markings to show changes made:

1. A method for plasma plating comprising:

positioning a substrate within a vacuum chamber;

positioning a depositant in **an evaporation source** **[a filament]** within the vacuum chamber;

reducing the pressure in the vacuum chamber to a level at or below 4 milliTorr;

introducing a gas into the vacuum chamber at a rate to raise the pressure in the vacuum chamber to a level at or between 0.1 milliTorr and 4 milliTorr;

applying a dc signal to the substrate at a voltage amplitude at or between 1 volt and 5000 volts;

applying a radio frequency signal to the substrate at a power level at or between 1 watt and 50 watts; and

heating the depositant to a temperature at or above the melting point of the depositant to generate a plasma in the vacuum chamber.

32. The method of Claim 1, further comprising:

positioning the **evaporation source** **[filament]** at a desired location relative to the substrate.

33. The method of Claim 32, wherein positioning the **evaporation source** **[filament]** includes positioning the **evaporation source** **[filament]** a distance from the substrate.

34. The method of Claim 33, wherein the distance is at or between 0.1 inches and 6

inches when the depositant in the **evaporation source [filament]** is to be deposited as a base layer.

35. The method of Claim 34, wherein the distance is at or between 2.75 inches and 3.25 inches when the depositant in the **evaporation source [filament]** is to be deposited as the base layer.

36. The method of Claim 33, wherein the distance is at or between 0.1 inches and 6 inches when the depositant in the **evaporation source [filament]** is to be deposited as a transition layer.

37. The method of Claim 36, wherein the distance is at or between 2.75 inches and 3.25 inches when the depositant in the **evaporation source [filament]** is to be deposited as the transition layer.

38. The method of Claim 33, wherein the distance is at or between 0.1 inches and 6 inches when the depositant in the **evaporation source [filament]** is to be deposited as a working layer.

39. The method of Claim 38, wherein the distance is at or between 2.0 inches and 2.5 inches when the depositant in the **evaporation source [filament]** is to be deposited as the working layer.

40. The method of Claim 1, further comprising:

positioning the **evaporation source [filament]** at a desired location relative to the substrate;

positioning a second depositant of the same type as the depositant in a second **evaporation source [filament]** within the vacuum chamber; and

positioning the second **evaporation source [filament]** at a desired location relative to

41. The method of 40, further comprising positioning the **evaporation source [filament]** a distance from the second **evaporation source [filament]**.

42. The method of Claim 41, wherein the distance is at or between 0.1 inches and 6 inches when the depositant in the **evaporation source [filament]** is to be deposited as a base layer.

43. The method of Claim 42, wherein the distance is at or between 3.0 inches and 4.0 inches when the depositant in the **evaporation source [filament]** is to be deposited as the base layer.

44. The method of Claim 41, wherein the distance is at or between 0.1 inches and 6 inches when the depositant in the **evaporation source [filament]** is to be deposited as a transition layer.

45. The method of Claim 44, wherein the distance is at or between 3.0 inches and 4.0 inches when the depositant in the **evaporation source [filament]** is to be deposited as the transition layer.

46. The method of Claim 41, wherein the distance is at or between 0.1 inches and 6 inches when the depositant in the **evaporation source [filament]** is to be deposited as a working layer.

47. The method of Claim 46, wherein the distance is at or between 2.5 inches and 3.0 inches when the depositant in the **evaporation source [filament]** is to be deposited as the working layer.

48. The method of Claim 1, further comprising:

an array of substrates and the substrate is provided as one of the array of substrates;

positioning the **evaporation source** **[filament]** at a desired position relative to outwardly facing surfaces of the array of substrates;

positioning a second depositant in a second **evaporation source** **[filament]** within the vacuum chamber; and

positioning the second **evaporation source** **[filament]** at a desired position relative to inwardly facing surfaces of the array of substrates.

51. The method of Claim 1, further comprising:

positioning the substrate at a desired location relative to the **evaporation source** **[filament]**.

52. The method of Claim 1, further comprising:

positioning a second depositant in a second **evaporation source** **[filament]** within the vacuum chamber before reducing the pressure in the vacuum chamber to a level at or below 4 milliTorr; and

heating the second depositant to a temperature at or above the melting point of the second depositant to generate a second plasma in the vacuum chamber after the prior plasma has been generated.

54. The method of Claim 51, further comprising:

positioning a third depositant in a third **evaporation source [filament]** within the vacuum chamber before reducing the pressure in the vacuum chamber to a level at or below 4 milliTorr; and

heating the third depositant to a temperature at or above the melting point of the third depositant to generate a third plasma in the vacuum chamber after the second plasma has been generated.

103. The method of Claim 1, wherein the **evaporation source [filament]** is a tungsten basket.

105. The method of Claim 1, wherein the **evaporation source [filament]** is a coil.

110. The method of Claim 1, wherein the **evaporation source [filament]** is a support structure.

111. The method of Claim 1, wherein heating the depositant includes supplying a current through the **evaporation source [filament]**.

112. The method of Claim 111, wherein heating the depositant includes incremental staging of the current to the **evaporation source [filament]** to achieve a more even heat distribution in the depositant.

129. A method for plasma plating comprising:

positioning a substrate within a vacuum chamber;

positioning a depositant in **[a filament within]** the vacuum chamber;

reducing the pressure in the vacuum chamber to a level at or between 0.1 milliTorr and 4 milliTorr;

applying a dc signal to the substrate at a voltage amplitude at or between 1 volt and 5000 volts;

applying a radio frequency signal to the substrate at a power level at or between 1 watt and 50 watts; and

heating the depositant to a temperature at or above the melting point of the depositant to generate a plasma in the vacuum chamber.